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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/076,727

02/13/2002

John T. Groves

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2093

8076

7590

04/27/2006

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EXAMINER

SHIBUYA, MARK LANCE

ART UNIT

PAPER NUMBER

1639

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/076,727	GROVES ET AL.	
	Examiner	Art Unit	
	Mark L. Shibuya	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-20, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 7-20, 25 and 26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 7-20, 25 and 26 are pending and subject to election of species.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/3/2006 has been entered.

Past and Present Amendments to the Claims

3. The examiner respectfully notes that the amendments to the claims, filed 10/3/2005, after the final rejection, mailed 8/30/2005, are now entered. Heretofore, these said After Final Amendments to the Claims were not entered, and were the subject of the advisory action, mailed 10/28/2005.
4. The examiner further respectfully notes that applicant's Amendments to the Claims, filed 2/3/2006, and entered with the aforementioned request for continued examination (RCE), show the newest changes to the claims, as amended after final

Art Unit: 1639

rejection. Thus the current pending claims are the result of two rounds of amendments to the claims that were finally rejected in the previous Office action, mailed 8/30/2005.

5. Upon inspection of the record, the examiner respectfully observes that there have been five sets of claim amendments in the instant application. They are as follows:

- a. The Originally Filed Claims, entered 2/13/2002; and subject to the Requirement for Restriction/Election, mailed 11/24/2004.
- b. Amendments to the Claims, entered 11/23/2004, after the Requirement for Restriction/Election, mailed 11/24/2004; and before the first action on the merits, mailed 2/3/2005.
- c. Amendments to the Claims, entered 5/26/2005, after the first action on the merits, mailed 2/3/2005; and before the final rejection, mailed 8/3/2005.
- d. After Final Amendments to the Claims, filed 10/3/2005, after final rejection, mailed 8/3/2005; and before the Advisory Action, mailed 10/28/2005.
- e. Amendments to the Claims, entered 2/3/2006, with the RCE, and before the instant Office action.

As stated above, the After Final Amendments, filed 10/3/2005, initially were not entered, but are entered upon granting of the RCE, entered 2/3/2006.

6. The examiner respectfully submits that the latest amendments to the claims have rendered uncertain the status of the requirement for election of species of paragraphs 3 and 4, as set forth in the Requirement for Restriction/Election, mailed 6/30/2004. In particular, the current claims 7, 8, and 9, and newly added claims 25 and 26 for example, now list *alternative* various species of dopant in what appear to be Markush groups, wherein the dopants are "selected from the group consisting of charged lipids, membrane proteins, and signaling proteins" (e.g., as in current claims 7 and 8), and wherein "lipid bilayer membranes are doped with a phosphatidylserine, or a signalling protein selected from the group consisting of ICAM, N-CAM, C-CAM, major histocompatibility complex (MHC) proteins, MHC peptides, selectins and integrins", (e.g., as in current claim 9 and newly added claims 25 and 26). It is noted that some of these species, such as signaling protein, ICAM, N-CAM, C-CAM, major histocompatibility complex (MHC) proteins, MHC peptides, selectins and integrins", do not seem to have appeared in the claims before, and so are newly claimed.

7. Therefore, in view of amendments to the claims as originally restricted, the examiner respectfully submits that a new requirement for election of species after RCE, is proper; and is set forth below.

Art Unit: 1639

8. The previous requirement for election of an Invention, as set forth in the previous Requirement for Restriction/Election, mailed 6/30/2004, is maintained. Applicant's election, entered 11/24/2004, with traverse, of Group II, drawn to methods for screening living cell adhesion on a solid substrate, again is acknowledged, and maintained.

Election/Restrictions

9. This application contains claims directed to the following patentably distinct species: A final species of dopant. The species are independent or distinct because the different species have different molecular structures, belong to different classes of molecules (e.g., lipid versus protein), have different properties or functions (e.g., ICAM versus MHC), so that the species have materially different design, modes of operation, function and effect, and would require search in different prior art literature.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 7-20, 25 and 26 are generic. It is noted that the different species are, in some case, generic. Applicant should indicate how the final species of dopant (e.g., N-CAM?), is related to other generic species, (e.g., membrane protein?).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected *consonant* with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

10. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Art Unit: 1639

11. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shibuya whose telephone number is (571) 272-0806. The examiner can normally be reached on M-F, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark L. Shibuya
Examiner
Art Unit 1639

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